

Claims:

1. A vaccine formulation comprising a malaria antigen and an immunostimulatory CpG oligonucleotide.
- 5 2. A vaccine as claimed in claim 1 wherein the antigen is selected from the group, RTS, RTS*, TRAP or immunologically equivalent derivatives thereof.
3. A vaccine as claimed in claim 1 or 2 wherein the vaccine comprises TRAP or immunologically equivalent derivative and one of RTS or RTS*.
- 10 4. A vaccine formulation as claimed herein additionally comprising an aluminium salt, 3 de-O-acylated monophosphoryl lipid A or a saponin adjuvant.
5. A vaccine as claimed herein wherein the oligonucleotide comprises two CpG dinucleotides.
- 15 6. A vaccine as claimed herein wherein the CpG oligonucleotide is between 15-45 nucleotides in length.
7. A vaccine as claimed herein wherein the CpG oligonucleotide comprises at least one phosphorothioate internucleotide bond.
8. A vaccine as claimed herein wherein the oligonucleotide is selected from the group:

20

Oligo (internal designation)	5'-SEQUENCE-3'	CpG	Thio
WD1001	TCC ATG ACG TTC CTG ACG TT	+	+
WD1002	TCT CCC AGC GTG CGC CAT	+	+
WD1003	ACC GAT AAC GTT GCC GGT GAC G	+	-
WD1004	G*G*G GTC AAC GTT GAG* G*G*G* G*G	+	Mix
WD1005	TCC ATG AGC TTC CTG AGC TT	-	+
WD1006	TCC ATG ACG TTC CTG ACG TT	+	-
WD1007	ACC GAT GAC GTC GCC GGT GAC GGC ACC ACG TCG TCG TTT TGT CGT TTT GTC GTT	+	+

9. A method for the prevention or amelioration of plasmodium infection in a patient, comprising administering an effective amount of a vaccine of any one of claims 1 to 8 to a patient.
- 5 10. A vaccine as claimed herein for use as a medicament.
11. A method of producing a vaccine as claimed in any one of claims 1 to 8 comprising admixing a malarial antigen and a CpG immunostimulatory oligonucleotide.
- 10 12. A method for the prevention or amelioration of plasmodium infection in a patient, comprising administering an effective amount of a CpG oligonucleotide followed after a suitable time by an effective amount of a malaria antigen.

add
a'1